

DECISION

**THE COMPTROLLER GENERAL
OF THE UNITED STATES**
WASHINGTON, D.C. 20548

FILE: B-210941.5

DATE: November 14, 1984

MATTER OF: Univox California, Inc.

DIGEST:

1. Agency acted reasonably by refusing to award a parallel development contract to a firm whose proposed design could involve schedule risk that would preclude development and testing on a parallel path and where the design problem with the proposal precluded its evaluation as superior to either of the offers that was selected.
2. Requirement for discussions is satisfied where the protester was made aware of the agency's underlying concern in connection with a prior protest in the same procurement and protester was subsequently accorded an opportunity to revise its proposal to correct the deficiency.

Univox California, Inc. protests the Army's failure to award it a contract under request for proposals (RFP) DAAK70-82-R-1233 to design, fabricate, test and deliver three reverse osmosis water purification units. Contracts were awarded to Aqua-Chem, Inc. and Brunswick Corporation. Although Univox has objected to the Army's action on a variety of grounds, we find that its determination had a reasonable basis and deny the protest.

The units are to produce potable water by utilizing reverse osmosis, which is the process of separating water from its impurities by forcing the water under pressure through a semi-permeable membrane. The units are to be fabricated in standard ANSI/ISO (trailer truck) containers and must operate under conditions ranging from winter to desert warfare.

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This is Univox's second protest concerning the procurement. In Univox California, Inc., B-210941, Sept. 30, 1983, 83-2 CPD ¶ 395, we sustained a protest against rejection of Univox's proposal without discussions because we found that the Army, in concluding that the Univox unit was underdesigned and could not produce sufficient product water, had improperly relied on calculated performance projections without regard for data furnished with Univox's offer. That data concerned the characteristics of the Univox proposed semi-permeable membrane or "RO element." Subsequently, the Army determined that Univox had proposed a higher flow rate RO element than other offerors and that remaining deficiencies in the Univox design could be corrected so the design would meet the RFP requirements. The Army reopened negotiations, included Univox in the competitive range, and conducted discussions with all parties in the competitive range including Univox. The Army then solicited and evaluated new best and final offers.

Univox protests the results of that evaluation, which Univox says was unfairly conducted. Specifically, Univox says the Army improperly downgraded its proposal for excessive noise at the operator control station. According to Univox, the operator stands 9.6 feet from the diesel engine (the principal noise generator) but is separated from the engine by bonded foam panels that reduce the noise level to 74.5 db. Univox concedes that operators would have to wear hearing protection (ear plugs or ear muffs) if they enter the engine enclosure while the engine is running. The noise level there will exceed the 85 db RFP design objective. However, Univox points out that the use of posted hazard signs requiring the use of hearing protection when entering such areas is consistent with accepted practice and recognized in MIL-STD-1474.

Univox also contends that the Army improperly downgraded its proposal because of unit susceptibility to excessive heat build-up in the engine container. Univox says that if the Army was concerned with excessive heat buildup, that point was not raised during discussions. Univox acknowledges that the Army, at the time of the first protest, questioned whether sufficient provision had been made for cooling the engine. Univox contends it answered these concerns by pointing out the location of the air

intake for engine cooling and by stating that 2400 cubic feet per minute of outside air would be ducted around the engine for cooling purposes.

Univox further alleges that the Army failed to adequately discuss concerns it evidently had with respect to the susceptibility of its design to contamination by nuclear, biological and chemical warfare (NBC) agents. According to Univox, the unit was to be designed to process water containing such contaminants but was not required to be hermetically sealed against them. Univox complains that the Army penalized it because it believed NBC agents could enter the Univox container, which would then be difficult to decontaminate. Univox says this alleged deficiency was not discussed with it and has nothing to do with the capability of the unit to effectively process NBC contaminated water.

Univox also expresses a number of concerns on a variety of other issues. These relate to matters such as Univox's choice of hose couplings, the scoring of Univox's proposal under various evaluation factors, including cost realism, and questions arising in part from an on-site visit by Army personnel to Univox's facilities. With regard to the latter, Univox says the findings reported to the Army by its site survey team are false and bear no relationship to what was actually observed.

It is not necessary to our decision that we address such issues. Univox based its protest on the discussion of its proposal at its debriefing. The Army has declined to furnish copies of its evaluation documents to Univox; our examination of the documents, however, indicates that these last mentioned issues bear little relation to the Army's decision not to award Univox a contract. The Army's concern with the Univox proposal related to that firm's system design methodology, which the RFP identified as the most significant technical evaluation factor.

In this instance, the Army reserved the right to make multiple awards and made awards to Aqua-Chem and Brunswick. Offerors were aware that the Army desired to

make multiple awards so that more than one unit could be tested before a full scale production contract was awarded. However, the record shows the contracting officer decided not to make more than two awards because the remaining lower scored proposals, including Univox's, were viewed as presenting greater technical risk than the proposals submitted by Aqua-Chem and Brunswick, particularly with respect to completion of the contract within the required schedule. To award a contract to a firm which might have to undertake substantial redesign of its system, the contracting officer reasoned, could place that firm several months behind Aqua-Chem and Brunswick and would prevent development and testing of the alternative designs on a parallel path.

With respect to the Army's decision against awarding a contract to Univox, the record shows that the Army's concerns stem from Univox's decision to drive a high pressure pump with a dedicated diesel engine located inside the containerized unit. Univox's approach avoided the need to drive the pump with an electric motor and allowed Univox to reduce the size of an externally located generator set that provides power to the remainder of the unit. The location of the engine, however, introduced potential complications because the engine would produce not only power but heat and noise.

Univox included features in its design that mitigate, in part, the effects of the engine's location. Univox placed the operator's station outside the container; the operator was not required to enter the container during normal operation of the system. As stated, the engine is cooled by conducting 2400 cubic feet per minute of outside air past the engine. Noise is restricted to the container by bonding acoustic insulating material to the container walls.

The Army, however, was uncertain that these measures would be sufficient to assure that heat and noise problems would not occur, particularly if the unit were operated in a desert environment. It concluded therefore that Univox's design might have to be substantially modified by: (1) substituting an electric motor and larger generator for the proposed diesel engine and generator, (2) replacing the

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air cooled diesel engine with a water cooled engine and adding a water cooling system, or (3) relocating equipment so that the diesel engine could be effectively isolated from the remainder of the container. Moreover, such a modification would disrupt parallel development, the Army believed, since Univox was to begin fabrication of the units within 2 months of award. Final assembly begins within 5 months, with delivery scheduled for month 9.

Concerning the Army's conclusions with regard to the technical merit of Univox's proposal, it should be noted that we have consistently held that evaluation of the technical merit of proposals is primarily an exercise of judgment that we will not disturb unless it is shown that the contracting activity has acted arbitrarily or has violated procurement laws or regulations. Leo Kanner Associates, B-213520, Mar. 13, 1984, 84-1 CPD ¶ 299. An agency does not act arbitrarily by downgrading or rejecting a proposal where the offeror has not met its responsibility to demonstrate in its proposal that the product it is offering meets the agency's needs as stated in the RFP. See, e.g., General Technology Applications, Inc., B-204635, Mar. 22, 1982, 82-1 CPD ¶ 266.

We think it was reasonable for the Army to be concerned that Univox's approach might prove to be unacceptable with respect to isolation of the diesel engine, necessitating redesign of at least part of the system and delay in ordering parts and fabricating the prototype units.

Our review of the Univox proposal, including its best and final offer, shows that Univox included minimal detail concerning thermal and acoustical isolation of the diesel engine. The proposal indicates that the temperature of the cooling air will increase by 122°F as it cools the engine. Univox states in its protest that duct work to convey air to, around and from the engine is commercially available off-the-shelf hardware, but this was not stated in Univox's proposal, which also contained no descriptive literature or detailed drawings depicting such duct work or showing how the cooling air would be discharged from the engine compartment.

As a result, Univox's intentions regarding isolation of the diesel engine are unclear from its proposal. For example, Univox states in its proposal that NBC contamination inside the container is not anticipated to pose a problem because the container is positively pressurized by engine cooling air. Univox's proposal also suggests, as the Army contends, that Univox may have intended, at least in cold weather, to discharge the cooling air directly into the interior of the container and through the container to the operator's station. If all or part of the cooling air is to be discharged to heat the operator's station, the noise attenuation provided by acoustically shielding the container could be defeated. If heated air is discharged inside the container, the discharged air becomes a potential source of not only heat but internal contamination of the container since, as the Army points out, Univox's proposal does not show that an intake filter is provided to trap incoming NBC contaminants.

Although Univox attempts to minimize the significance of the Army's concerns, we note that the RFP required that the system operate in both very cold and very hot environments. It also required an integrated design and consideration of human engineering factors. In our view, the impact of temperature inside and adjacent to the engine container on component performance as well on habitability by the operators, are significant design considerations under these criteria. We also believe that, while Univox and the Army disagree concerning the appropriateness of requiring hearing protection devices such as ear plugs or ear muffs under MIL-STD-1474, the noise level was a factor to be examined in evaluating the human engineering aspects of the proposed design. Further, the protester is incorrect in suggesting, as it has, that there was no NBC decontamination requirement. The RFP states explicitly that the unit:

" . . . and its associated auxiliary equipment shall be so configured to allow for decontamination using standard chemical/biological decontaminants available in the field to the point that it poses no casualty-producing hazard to unprotected personnel exposed for an indefinite period

of time. These decontaminants are listed in ARCSL-SR-81004 and ARCSL-SR-81005. The labor required to achieve this decontamination shall not exceed two man-hours."

Finally, we consider Univox's contention that the Army's concerns were not adequately conveyed to it during discussions. According to Univox, the Army's concern with heat and noise was addressed only tangentially and no indication was given that the Army viewed these issues as interrelated with potential NBC decontamination. The Army disagrees.

We reject Univox's contentions because we think the purpose of requiring discussions was satisfied. As indicated in our prior decision, that purpose is to assure that a firm whose proposal appears to have correctable weaknesses is given the opportunity, through the process of negotiations, to explain or attempt to correct them. Univox California, Inc., supra, at 9. In this connection, we have held that it is sufficient that offerors are led to areas of their proposals that are deficient, and thus placed generally on notice of the deficiency. System Sciences Inc., B-205279, July 19, 1982, 82-2 CPD ¶ 53. Univox was aware in this instance of the causes of the Army's concern because the question of noise and cooling due to the location of the diesel engine was raised by the Army in its reports in connection with Univox's first protest. Indeed, it was noted in our prior decision. Univox California, Inc., supra, at p. 4. The NBC decontamination, heating and noise questions all stem from the location of the diesel engine. Since Univox was subsequently accorded the opportunity in its best and final offer to expand upon or modify its proposed design in this respect, it has no basis for complaint.

The protest is denied.

Milton J. Fowler
for Comptroller General
of the United States